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6/30/1971

...IRONMENTAL PROTECTION AGENCY

Staff Evaluation - Proposed
NPDES Permit

The Chicago, Milwaukee, St. Paul,
and Pacific Railroad Company
516 West Jackson Boulevard
Room 898
Chicago, Illinois 60606

C of E App. No.: 071-0YB-2-000090

EPA App. No.:

For:
The Chicago, Milwaukee, St. Paul,
and Pacific Railroad Company
Avery Engine Terminal
Avery, Idaho 83802

Date of Application: June 30, 1971

Activity:

Railroad engine house, engine storage tracks, engine washrack, and engine fueling facilities.

Receiving Water:

St. Joe River at approximately River Mile 64.

Applicable Water Quality Standards:

The Idaho State Water Quality Standards were revised and adopted by the Idaho Board of Environmental and Community Services on June 28, 1973. Subsequently, these standards were approved by the Environmental Protection Agency, thereby making them legally enforceable State/Federal standards.

The St. Joe River is classified in the standards as a primary contact recreation water, Class A. Uses to be protected are domestic and industrial water supply, irrigation, livestock watering, salmonid fish spawning and rearing, other fishing and aquatic life, hunting and wildlife, water skiing and swimming, pleasure boating, and aesthetics.

The St. Joe River at the location of the subject discharge is being considered for inclusion in the Federal wild and scenic river system.

The FWPCA Amendments of 1972 require that limitations be set for all sources of discharge to the navigable waters. Point sources other than publicly owned treatment works must use the best practicable control technology currently available by not later than July 1, 1977. (Publicly owned treatment works must have at least secondary treatment by July 1, 1977.)

As part of the State Pollution Control Program required pursuant to Section 106 of the FWPCA Amendments of 1972, the State has classified the St. Joe River as a water quality limiting segment. (If sufficient

data are not available to accurately determine segment classification, the segment is classified as water quality limiting.)

Existing Situation:

The Chicago, Milwaukee, St. Paul, and Pacific Railroad Company, located at Avery, Idaho, was visited on September 26, 1973, by the following:

EPA:	Donald Gipe
Idaho Department of Environmental and Community Services:	George Wagner
Chicago, Milwaukee, St. Paul, and Pacific Railroad Company:	Charles Chambers (Deer Lodge, Montana) Ed Howard (Deer Lodge, Montana) Phil Redfern (Deer Lodge, Montana)

This staff evaluation is based on the permit application and on information obtained at the time of the site visit.

The subject permit application is for discharges from an engine roundhouse used for maintenance, servicing, and classification of railroad equipment. The roundhouse is located approximately one mile downstream from Avery, Idaho. Wastewater from the engine house, engine storage tracks, engine washrack, and the fueling facilities contain large quantities of oil and other debris. This wastewater is directed into an oil separator (installed in 1948) which discharges into the St. Joe River. Discharge from the separator was estimated to be approximately 3,000 gallons per day at the time of the site visit. The permit application reports an average of 4,500 gallons per day discharge and a maximum of 5,000 gallons per day discharge from the oil separator. The permit application also reports the oil concentration in the discharge to vary from a daily average of five mg/l to a maximum concentration of ten mg/l.

In correspondence with both EPA, (May 18, 1973) and the State Department of Health (June 30, 1971), the railroad has indicated that it is their intention to purchase and install oil skimmer and salvaged oil storage facilities at the existing separator, however, at the time of the site visit, no work had been started.

A sanitary facility located in the roundhouse discharges continuously into the St. Joe River with no treatment. At the time of the site visit the discharge was estimated to be 0.25 gpm. The facility serves an average of one person on each of three eight-hour shifts per day.

Currently all wastewater generated in Avery (maximum population less than 500; average population less than 200) is discharged untreated

into the St. Joe River. The City of Avery has reportedly been in contact with the "state" regarding the establishment of a sewer district and the ultimate construction of a collection and treatment system. To date, however, the city has not filed a "letter of intent" (indicating a desire to apply for a construction grant) with the DECS, nor has it corresponded with either the Boise Office, DECS, or the Coeur d'Alene regional office.

Flow Information:

St. Joe River at Calder, Idaho. Source: Water Resources Data for Idaho, surface water records, 1971.

Average discharge: 51 years - 2,361 cfs.
Minimum discharge: November 27, 1952 - 91 cfs.
Maximum discharge: Water year 1971 - November 22 - 344 cfs.

Previous Action:

No State discharge permit has been issued for the subject discharge, and information on the impact of the existing effluent on the receiving water is not available.

Evaluation:

At the time of the site visit, the St. Joe River appeared to be at or near low flow stage. The existing discharge from the oil separator resulted in no visual impact on the water. The existing discharge from the sanitary facility, however, did create an aesthetic degradation on the surface of the water and on the bank just before it reached the water. Fecal coliforms in this discharge are expected to result in a violation of the applicable water quality criteria.

Both the State water quality standards and the 1972 Amendments to the FWPCA require that all municipal (sanitary) waste receive at least secondary treatment prior to discharge. Because secondary treatment facilities are not available, the only alternative consistant with the law is to require elimination of the sanitary discharge from the engine terminal. Elimination of the discharge of sanitary wastes can be accomplished fairly simply, cheaply, and rapidly by the construction of either a septic tank or the installation of a self-contained unit for the disposal of sanitary wastes.

There does not appear to be any practical way to eliminate the discharge from the oil separators, however, very effective oil removal can be achieved by properly designed oil separators and by filtration. Placing a stringent final effluent limitation on the quantity of oil discharged will require the company to upgrade their facility. It is believed that the necessary treatment to meet the effluent limitations will be consistant both with the requirement for best practicable treatment and with the apparent plans of the company to upgrade the treatment facility. One year should be adequate time to achieve the upgrading. (Especially since the company has planned the upgrading for at least two years.)

Recommended Action:

1. Allow the existing discharges from outfalls 001 and 002 to continue until September 30, 1974 at which time discharges from outfall 001 should be eliminated and discharges from outfall 002 should be limited as follows:

	Average	Maximum
Flow	4,500 gpd	5,000 gpd
Oil	2.5 mg/l	5.0 mg/l
pH	pH should be between 6.0 and 9.0	

2. Periodic sampling of discharge 002 will be required to insure that the discharge does not exceed the allowable. Monthly sampling should be sufficient.

Because discharge 001 will be eliminated within one year, no sampling should be required of that discharge.

3. Terminate the permit on December 31, 1978, five years after the estimated date of issuance.

Donald C. Gipe
Sanitary Engineer
October 10, 1973